

ATTACHMENT A: SUMMARY OF REQUIREMENTS CLASS VI OPERATING AND REPORTING CONDITIONS CLEAN ENERGY SYSTEMS MENDOTA

1. Facility Information

Facility name: CLEAN ENERGY SYSTEMS MENDOTA
MENDOTA_INJ_1
Facility contact: Rebecca Hollis
400 Guillan Park Drive, Mendota, CA 93640
Office: 916-638-7967
Well location: MENDOTA, FRESNO COUNTY, CA
T13S R15E S32
LAT/LONG COORDINATES (36.75585015/-120.36440423)

This attachment is one of the several documents listed below that was prepared by Schlumberger and delivered to Clean Energy Systems. These documents were prepared to support the Clean Energy Systems preconstruction application to the EPA:

- Attachment A: Summary of Requirements Class VI Operating and Reporting Conditions (Schlumberger, 2021a)
- Attachment B: Area of Review and Corrective Action Plan (Schlumberger, 2021b)
- Attachment C: Testing and Monitoring Plan (Schlumberger, 2021c)
- Attachment D: Injection Well Plugging Plan (Schlumberger, 2021d)
- Attachment E: Post-Injection Site Care and Site Closure Plan (Schlumberger, 2021e)
- Attachment F: Emergency and Remedial Response Plan (Schlumberger, 2021f)
- Attachment G: Construction Details Clean Energy Systems Mendota (Schlumberger, 2021g)
- Attachment H: Financial Assurance Demonstration (Schlumberger, 2021h)
- Class VI Permit Application Narrative 40 CFR 146.82(A) Clean Energy Systems Mendota (Schlumberger, 2021i)
- Schlumberger Quality Assurance and Surveillance Plan (Schlumberger, 2021j)

Disclaimer

Any interpretation, research, analysis, data, results, estimates, or recommendation furnished with the services or otherwise communicated by Schlumberger to Clean Energy Systems at any time in connection with the services are opinions based on inferences from measurements, empirical relationships and/or assumptions, which inferences, empirical relationships, and/or assumptions are not infallible, and with respect to which professionals in the industry may differ. Accordingly, Schlumberger cannot and does not warrant the accuracy, correctness, or completeness of any such interpretation, research, analysis, data, results, estimates, or recommendation. Clean Energy Systems acknowledges that it is accepting the services "as is", that Schlumberger makes no representation or warranty, express or implied, of any kind or description in respect thereto. Specifically, Clean Energy Systems acknowledges that Schlumberger does not warrant that any interpretation, research, analysis, data, results, estimates, or recommendation is fit for a particular purpose, including but not limited to compliance with any government request or regulatory requirement. Clean Energy Systems further acknowledges that such services are delivered with the explicit understanding and agreement that any action taken based on the services received shall be at its own risk and responsibility and no claim shall be made against Schlumberger as a consequence thereof.

To the extent permitted by applicable law, Clean Energy Systems shall not provide this report to any third party in connection with raising finance or procuring investment (other than pursuant to an equity capital raising on a public market) without a No Reliance Letter first being completed and signed by the third party and provided to Schlumberger. The form of the No Reliance Letter being agreed to by both Clean Energy Systems and Schlumberger. Subject to this requirement and upon full payment of applicable fees, copyright ownership in this report shall vest with Clean Energy Systems. Schlumberger grants no title or license or right to Clean Energy Systems to use Schlumberger's Intellectual Property except as necessary for Clean Energy Systems to use the report.

Copyrights

Copyright © 2021, Schlumberger
All rights reserved.

Trademarks

All companies or product names mentioned in this document are used for identification purposes only and may be trademarks of their respective owners.

2. Injection Well Operating Conditions

Table 1 shows the limitation or permitted values for well parameters or condition.

Table 1. Limitation or permitted values for injection well operating conditions.

Parameter/Condition	Limitation or Permitted Value
Maximum injection pressure—surface	2026 psig
Maximum injection pressure—bottomhole	5677 psig
Annulus pressure	5777 psig
Annulus pressure/tubing differential	100 psig
Maximum CO ₂ injection rate	958.9 tonnes/day

The maximum injection pressure predicted at this preconstruction phase, which serves to prevent confining-formation fracturing, was determined using the fracture gradient obtained from initial reservoir and geomechanical models multiplied by 0.9, per 40 CFR 146.88(a). An update to maximum injection pressure and rate will be provided once a characterization well is drilled and reservoir and geomechanical models are updated with site-specific properties.

3. Routine Shutdown Procedure

Under routine conditions (e.g., for well workovers), the permittee will reduce CO₂ injection at a rate of 500 tonnes per day over a 6-day period to ensure protection of health, safety, and the environment. (Procedures that address immediately shutting-in the well are in Attachment F, the Emergency and Remedial Response Plan, of this permit.)

4. Class VI Injection Well Reporting Frequencies

Table 2 shows the injection well reporting frequencies.

Table 2. Injection well reporting frequencies.

Activity	Minimum Reporting Frequency
CO ₂ stream characterization	Semi-annually
Injection pressure, injection rate, injection volume, pressure on the annulus, and annulus fluid level	Semi-annually
Corrosion monitoring	Semi-annually
External MITs	Within 30 days of completion of test
Pressure falloff testing	In the next semi-annual report

Note: All testing and monitoring frequencies and methodologies are included in Attachment C: Testing and Monitoring Plan of this permit.

5. Class VI Project Reporting Frequencies

Table 3 shows the project reporting frequencies.

Table 3. Project reporting frequencies.

Activity	Minimum Reporting Frequency
Groundwater quality monitoring	Semi-annually
Plume and pressure front tracking	In the next semi-annual report
Monitoring well MITs	Within 30 days of completion of test
Financial responsibility updates pursuant to H.2 and H.3(a) of this permit	Within 60 days of update

Note: All testing and monitoring frequencies and methodologies are included in Attachment C: Testing and Monitoring Plan of this permit.

6. References

- Schlumberger. (2021a). *Attachment A: Summary of Requirements Class VI Operating and Reporting Conditions.*
- Schlumberger. (2021b). *Attachment B: Area of Review and Corrective Action Plan 40 CFR 146.84(b) Clean Energy Systems Mendota.*
- Schlumberger. (2021c). *Attachment C: Testing and Monitoring Plan 40 CFR 146.90 Clean Energy Systems Mendota.*
- Schlumberger. (2021d). *Attachment D: Injection Well Plugging Plan 40 CFR 146.92(B) Clean Energy Systems Mendota.*
- Schlumberger. (2021e). *Attachment E: Post-Injection Site Care and Site Closure Plan 40 CFR 146.93(A) Clean Energy Systems Mendota.*
- Schlumberger. (2021f). *Attachment F: Emergency and Remedial Response Plan 40 CFR 146.94(A) Clean Energy Systems Mendota.*
- Schlumberger. (2021g). *Attachment G: Construction Details Clean Energy Systems Mendota.*
- Schlumberger. (2021h). *Attachment H: Financial Assurance Demonstration 40 CFR 146.85 Clean Energy Systems Mendota.*
- Schlumberger. (2021i). *Class VI Permit Application Narrative 40 CFR 146.82(A) Clean Energy Systems Mendota.*
- Schlumberger. (2021j). *Quality Assurance and Surveillance Plan.*